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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,633	04/15/2004	Gary Dilling	446-011602-US (PAR)	9000
2512	7590	05/02/2006	EXAMINER	
PERMAN & GREEN 425 POST ROAD FAIRFIELD, CT 06824			SHARP, JEFFREY ANDREW	
			ART UNIT	PAPER NUMBER
			3677	
DATE MAILED: 05/02/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/825,633	DILLING, GARY	
	Examiner	Art Unit	
	Jeffrey Sharp	3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4 and 5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4 and 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

[1] This action is responsive to Applicant's remarks/amendment filed on 08 February 2006 with regard to the Official Office action mailed on 04 November 2005.

Status of Claims

[2] Claims 1, 2, 4, and 5 are pending.

Drawings

[3] The drawings are objected for informalities. Examiner notes that Figure 1 of the present invention appears to be a reproduction of Figure 1 of US-5,957,645, which is not a parent case. Therefore, Figure 1 of the present invention should be labeled "prior art".

Specification

[4] The disclosure is objected to because of the following informalities:

It appears that the Smith et al. reference in paragraph [004] has an incorrect U.S. patent number. It should be U.S. Patent No. Re-24,878.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

[5] The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 3677

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

[6] Claims 1, 2, 4, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Stacy US-5,957,645.

In its broadest sense, Stacy substantially teaches:

A fastener having a recess constructed to have a partial interference fit with an associated driver for removably engaging said driver and said fastener, said fastener having a shank with longitudinal axis, said shank constructed having the recess formed at its end, the recess having a central portion (18) and a plurality of wings (22) radiating outwardly from the central portion, each of the wings having an installation wall (24) and a removal wall (26), the wings being configured so that at least one of the installation or removal walls defines a segment of a spiral (clearly shown in the drawings), said recess further comprising: a transition surface (32) connecting said installation and removal walls of adjacent wings, said transition surface extending from a top portion of said recess to a bottom portion of said recess; an interference surface (90',92') constructed as portion of said transition surface (32), said interference surface having a first radial distance from the longitudinal axis at a top portion thereof to a second radial distance from said longitudinal axis at a bottom portion thereof; and wherein said first radial distance is larger than said second radial distance (as supported by Stacy col. 9 line 66 - col. 10 line 9). "Transition surfaces" (32) taught by Stacy are diametrically opposed. Although Applicant's definition of interference surface is acknowledged, examiner takes the position that any surface that is capable of making contact with a driver is broadly construed as an "interference surface". Moreover, any surface of the recess that is adapted to cause the slightest

Art Unit: 3677

amount of friction between a driver and the recess is broadly construed as being an interference surface adapted to cause an "interference fit".

As for Claim 2, column 2 lines 50-53 suggests "an angle with a line parallel to said longitudinal axis in a range of between .5 degrees to 2 degrees". See also, col. 9 line 66 - col. 10 line 9.

As for claim 4, in its broadest sense, the interference surfaces taught by Stacy are constructed to provide an interference with the driver at only a forward portion of a driver. This is especially true, due to the fact that all internal surfaces of the recess may be provided with a small draft angle. This limitation is also entirely dependent on the type of driver intended to be engaged with the recess, and therefore, since a driver is not positively claimed, this limitation has not been given significant patentable weight. Note that it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham, 2 USPQ2d 1647 (1987)*.

As for Claim 5, the first radial distance is formed substantially "according to a standard recess opening of a spiral type recess".

Response to Arguments/Remarks

[7] Claims 1, 2, 4, and 5 were previously rejected under 35 U.S.C. 102(b) as being anticipated by Stacy US-5,957,645.

Applicant's arguments/remarks with regard to this reference have been fully considered, but are not persuasive for at least the following reasons:

Art Unit: 3677

In response to Applicant's argument that "there is no mention of an interference surface constructed to generate an interference fit anywhere in the cited reference Stacy" (middle of page 6, remarks), things clearly shown in reference patent drawings qualify as prior art features, even though unexplained by the specification. *In re Mraz*, 173 USPQ 25 (CCPA 1972). In the instant case, Stacy shows transition surface (32), which inherently comprises an interference surface, since at least some contact between a driver and said transition surface (32) will occur, especially if given enough force. The term "interference" is defined as "something that hinders, obstructs, or impedes". Therefore, the plain meaning of "interference surface" is "a surface that hinders, obstructs, or impedes". The examiner takes the position that at least a portion of each transition surface (32) taught by Stacy comprises a "surface that hinders, obstructs, or impedes" a driver from further axial entry into the recess and rotation of said driver within the recess.

It is to be made clear that Applicant is not claiming a more limiting "interference fit" between a positively claimed driver in combination with the recess. An "interference fit" would require at least partial shrinkage of the driver (not claimed), which could easily be facilitated by excessive axial force applied to the driver.

Examiner acknowledges Applicant's alleged definition of "interference fit", and is quite familiar with the term as it is commonly used in industry. For clarity, and uniformity, several definitions have been provided with this correspondence. The broadest well-accepted meaning of this term (often deemed synonymous with "press-fit") is "a very tight fit requiring force to mate parts". Therefore, if a driver (not positively claimed) were used with excessive force, the interference surface taught by Stacy would "form an interference fit with a driver", or rather

Art Unit: 3677

"form a very tight fit between the fastener and driver which requires force". A recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham, 2 USPQ2d 1647 (1987)*.

In response to Applicant's argument that an interference surface on a transition surface (32) is not anticipated by Stacy (middle of page 7, remarks), Applicant's attention is directed to Stacy col. 9 line 66 - col. 10 line 9. Although transition surface (32) appears to be approximately vertical from the drawings, Stacy states that it is INHERENT that conventional manufacturing processes cannot easily replicate an exact vertical wall, and so some positive draft normally in the order of 1 degree is inevitable (as is known in the art). This angle of 1 degree falls within the range "0.5 degrees to 2 degrees" disclosed by Applicant in claim 2.

Therefore, respectfully contrary to Applicant's opinion, Stacy teaches a transition surface (32) having an INHERENT interference surface, said interference surface "having a larger first radial distance from the longitudinal axis at a top portion thereof than a second radial distance from said longitudinal axis at a bottom portion thereof", said interference surface also forming "an angle with a line parallel to said longitudinal axis in a range of between .5 degrees to 2 degrees".

Since no positive recitation of a driver is made, all arguments drawn to "interference fit" are moot.

New Grounds of Rejection

Claim Rejections - 35 USC § 112

Art Unit: 3677

[8] The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

[9] Claim 5 is currently rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what a "*standard recess opening of a spiral type recess*" is.

Firstly, there appears to be no substantial definition of "standard recess opening of a spiral type recess". Therefore, no comparison of "*first radial distance*" with the present invention can be made. Secondly, it is not proper to include a standard in a pending claim, since standards are subject to change.

Lastly, the term "spiral type" is deemed synonymous with --spiral like-- and --spiral recess, or the like--. The phrase "or the like" renders the claim indefinite because the claim includes elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claim unascertainable. See MPEP § 2173.05(d).

Claim 5 has been treated, as it is understood.

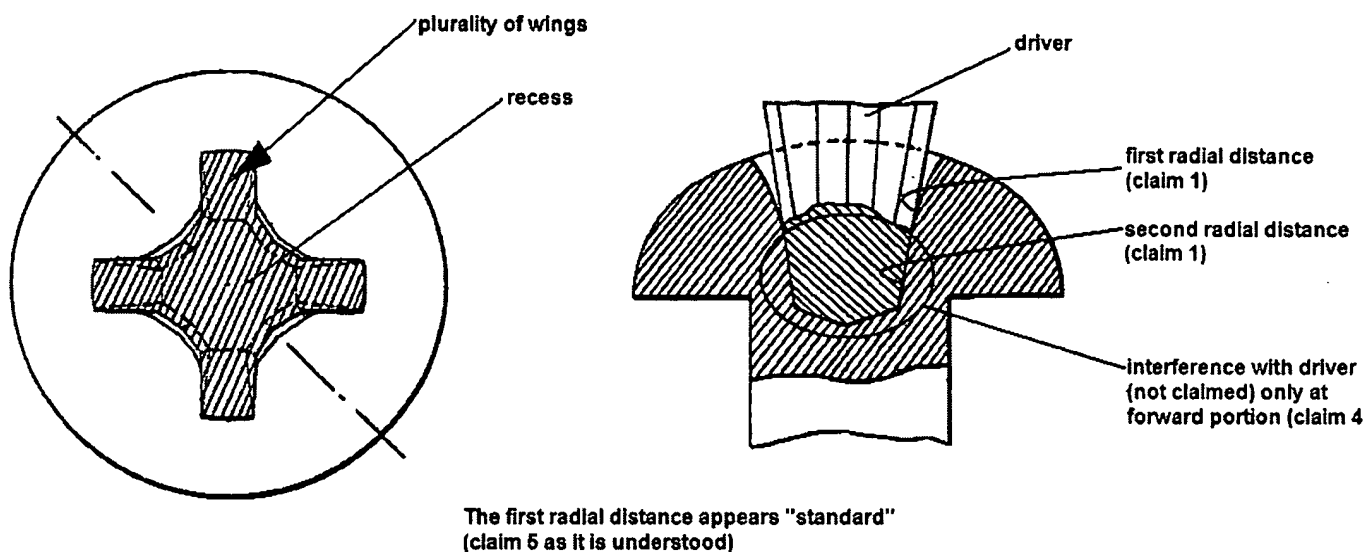
Conclusion

[10] The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is as follows:

Should Applicant amend the claims to include a positive recitation with a driver, Muenchinger US-3,237,506 (cited on form PTO-1449) suggests a driver in combination with a

Art Unit: 3677

recess having a plurality of wings, said recess having a transition surface between each wing, said transition surfaces each having an interference surface, each interference surface having a first radial distance at a top portion being greater than a second radial distance at a bottom portion, said driver having an interference fit only at a forward portion (pertinent to claim 4):



[11] **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 3677

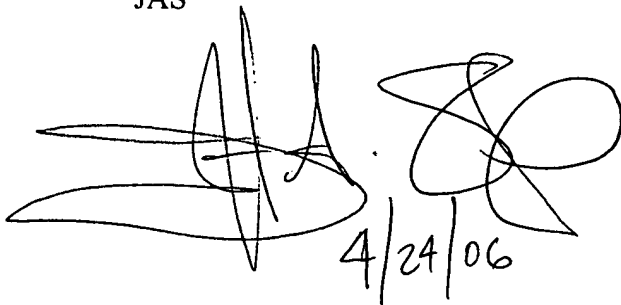
however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

[12] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Sharp whose telephone number is (571) 272-7074. The examiner can normally be reached 7:00 am - 5:30 pm Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached on (571) 272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAS



4/24/06



ROBERT J. SANDY
PRIMARY EXAMINER